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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/676,703	09/29/2000	Ilya A. Korisch	4142-4007	1553

7590

09/25/2003

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EXAMINER

MILLER, BRANDON J

ART UNIT	PAPER NUMBER
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2683

10

DATE MAILED: 09/25/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/676,703

Applicant(s)

KORISCH ET AL.

Examiner

Brandon J Miller

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 09 July 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-29 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-29 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

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**DETAILED ACTION**

***Response to Amendment***

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

Claim 19 is rejected under 35 U.S.C. 102(e) as being anticipated by Killion.

Regarding claim 19 Killion teaches an antenna creating an electromagnetic field and generating a near field canceling the effects of an electromagnetic field in a predetermined region (see abstract, col. 3, lines 12-15, col. 4, lines 27-34, and col. 5, lines 60-65).

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-5, 8-9, 11-12, 14-17, and 20-29 are rejected under 35 U.S.C. 102(e) as being unpatentable over Killion in view of Shattil.

Regarding claim 1 Killion teaches an apparatus having an RF circuitry portion (see abstract and col. 5, lines 60-65). Killion also teaches an antenna creating an electromagnetic field and a radiation device generating a near field substantially canceling the effects of an electromagnetic field in a predetermined region (see abstract, col. 3, lines 12-15, col. 4, lines 27-34, and col. 5, lines 60-65). Killion does not specifically teach an active shield. Shattil teaches an active shield substantially canceling the effects of an electromagnetic field (see col. 5, lines 6-20, col. 24, lines 61-67 and col. 25, lines 1-6). It would have been obvious to one of ordinary skill in the art at the time the invention was made to make the invention adapt to include an active shield because this would allow for an electric cancellation signal for canceling electromagnetic radiation.

Regarding claim 2 Shattil teaches an active shield that is coupled to an RF circuitry portion of a device (see col. 24, lines 61-67 and col. 25, lines 1-6).

Regarding claim 3 Killion teaches a device as recited in claim 1 except for an adjustment circuit located between an antenna and an RF circuitry portion. Shattil teaches an adjustment circuit for adjusting the phase of a signal (see col. 4, lines 53-60 and col. 5, lines 8-9). It would have been obvious to one of ordinary skill in the art at the time the invention was made to make Killion adapt to include an adjustment circuit located between an antenna and an RF circuitry

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portion because this would allow for a variable phase shifter circuit that controls the phase of a received signal from an antenna.

Regarding claim 4 Shattil teaches a coupler located between RF circuitry and active shield (see col. 31, lines 66-67).

Regarding claim 5 Shattil teaches a coupler located between RF circuitry and adjustment circuit (see col. 31, lines 66-67 and col. 32, lines 1-5).

Regarding claim 8 Shattil teaches a circuit that includes a phase shifter (see col. 7, line 11).

Regarding claim 9 Shattil teaches a circuit that includes a variable gain amplifier (see col. 14, lines 8-11).

Regarding claim 11 Shattil a sensor located in proximity to an active shield (see col. 5, lines 8-9 and col. 27, lines 53-65).

Regarding claim 12 Shattil teaches a control circuit (see col. 24, lines 44-46).

Regarding claim 14 Killion teaches an apparatus having an RF circuitry portion (see abstract and col. 5, lines 60-65). Killion also teaches an antenna creating an electromagnetic field and a radiation device generating a near field for substantially canceling the effects of an electromagnetic field in a predetermined region (see abstract, col. 3, lines 12-15, col. 4, lines 27-34, and col. 5, lines 60-65). Killion does not specifically teach a plurality of active shields. Shattil teaches active shields substantially canceling the effects of an electromagnetic field (see col. 5, lines 6-20, col. 24, lines 61-67 and col. 25, lines 1-6). It would have been obvious to one of ordinary skill in the art at the time the invention was made to make the invention adapt to

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include a plurality of active shields because this would allow for an electric cancellation signal for canceling electromagnetic radiation.

Regarding claim 15 Killion teaches a device as recited in claim 1 except for a plurality of adjustment circuits located between an RF circuitry portion and a plurality of active shields. Shattil teaches a plurality of adjustment circuit located between an RF circuitry portion and active shields (see col. 9, lines 33-35, col. 31, lines 66-67 and col. 32, lines 1-7). It would have been obvious to one of ordinary skill in the art at the time the invention was made to make Killion adapt to include an adjustment circuit located between an antenna and an RF circuitry portion because this would allow for a variable phase shifter circuit that controls the phase of a received signal from an antenna.

Regarding claim 16 Shattil teaches an adjustment circuit that includes a phase shifter and a variable gain amplifier (see col. 7, line 11 and col. 14, lines 8-11).

Regarding claim 17 Shattil teaches a control circuit (see col. 24, lines 44-46).

Regarding claim 20 Killion teaches creating an electromagnetic field in a predetermined region and generating a near field for canceling the effects of an electromagnetic field in a predetermined region (see abstract, col. 3, lines 12-15, and col. 5, lines 60-65). Killion does not specifically teach an active shield. Shattil teaches an active shield substantially canceling the effects of an electromagnetic field (see col. 5, lines 6-20, col. 24, lines 61-67 and col. 25, lines 1-6). It would have been obvious to one of ordinary skill in the art at the time the invention was made to make the invention adapt to include an active shield because this would allow for an electric cancellation signal for canceling electromagnetic radiation.

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Regarding claim 21 Shattil teaches coupling an RF circuitry portion to an active shield (see col. 24, lines 61-67 and col. 25, lines 1-6). Shattil teaches an adjustment circuit (see col. 13, lines 53-57).

Regarding claim 22 Killion teaches a device as recited in claim 20 except for phase shifting and amplifying a signal from an antenna before a signal reaches an active shield. Shattil teaches an active shield (see col. 5, lines 7-10). Shattil teaches phase shifting and amplifying a signal from an antenna (see col. 4, lines 53-60 and col. 5, lines 8-9). It would have been obvious to one of ordinary skill in the art at the time the invention was made to make the Killion adapt to include phase shifting and amplifying a signal from an antenna before a signal reaches an active shield because this would allow for a variable phase shifter circuit that controls the phase of a received signal from an antenna.

Regarding claim 23 Killion and Shattil teach a device as recited in claim 22 except for feeding back from a sensor located in proximity to an active shield a signal which is used to vary the phase shifting and amplifying. Shattil teaches feeding back from a sensor located in proximity to a cancellation circuit a signal which is used to vary the phase shifting and amplifying (see col. 27, lines 53-65). It would have been obvious to one of ordinary skill in the art at the time the invention was made to make the device adapt to include feeding back from a sensor located in proximity to an active shield a signal which is used to vary the phase shifting and amplifying because this would allow for a variable phase shifter and amplifier circuit that controls the phase of a received signal from an antenna.

Regarding claim 24 Killion teaches creating an electromagnetic field from an antenna (see col. 4, lines 27-34). Killion also teaches generating a near field canceling the effects of an

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electromagnetic field in a predetermined region (see col. 3, lines 12-15, and col. 5, lines 60-65).

Killion does not specifically teach a plurality of active shields. Shattil teaches active shields used to cancel the effects of an electromagnetic field (see col. 5, lines 6-20, col. 24, lines 61-67 and col. 25, lines 1-6). It would have been obvious to one of ordinary skill in the art at the time the invention was made to make the invention adapt to include a plurality of active shields because this would allow for an electric cancellation signal for canceling electromagnetic radiation.

Regarding claim 25 Killion teaches creating an electromagnetic field from an antenna (see col. 4, lines 27-34). Killion also teaches generating a near field canceling the effects of an electromagnetic field in a predetermined region (see col. 3, lines 12-15 and col. 5, lines 60-65). Killion does not specifically teach an active shield. Shattil teaches an active shield substantially canceling the effects of an electromagnetic field (see col. 5, lines 6-20, col. 24, lines 61-67 and col. 25, lines 1-6). It would have been obvious to one of ordinary skill in the art at the time the invention was made to make the invention adapt to include an active shield because this would allow for an electric cancellation signal for canceling electromagnetic radiation.

Regarding claim 26 Shattil teaches coupling an RF circuitry portion to an active shield (see col. 24, lines 61-67 and col. 25, lines 1-6). Shattil teaches an adjustment circuit (see col. 13, lines 53-57).

Regarding claim 27 Killion and Shattil teach a device as recited in claim 22 and is rejected given the same reasoning as above.

Regarding claim 28 Killion and Shattil teach a device as recited in claim 23 and is rejected given the same reasoning as above.



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Regarding claim 29 Killion teaches creating an electromagnetic field from an antenna (see col. 4, lines 27-34). Killion also teaches generating a near field canceling the effects of an electromagnetic field in a predetermined region (see col. 3, lines 12-15, and col. 5, lines 60-65). Killion does not specifically teach a plurality of active shields. Shattil teaches active shields used to cancel the effects of an electromagnetic field (see col. 5, lines 6-20, col. 24, lines 61-67 and col. 25, lines 1-6). It would have been obvious to one of ordinary skill in the art at the time the invention was made to make the invention adapt to include a plurality of active shields because this would allow for an electric cancellation signal for canceling electromagnetic radiation.

Claims 18 is rejected under 35 U.S.C. 103(a) as being unpatentable over Killion in view of Shattil and Rinot.

Regarding claim 18 Killion and Shattil teach a device as recited in claim 15 except for a number of active shields that is approximately four. Rinot teaches a number of active shields that is approximately four (see col. 4, lines 25-28). It would have been obvious to one of ordinary skill in the art at the time the invention was made to make the invention adapt to include a number of active shields that is approximately four because this would allow for an electromagnetic protection device effective for isolating electromagnetic radiation of a mobile phone.

Claims 6, 7, 10, and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Killion in view of Shattil and Wilson.

Regarding claim 6 Killion and Shattil teach a device as recited in claim 3 except for an adjustment circuit receiving a reduced antenna signal, and outputting a signal to an active shield

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to create a near field based on a reduced antenna signal. Killion does teach outputting a signal to an active shield to create a near field based on an antenna signal (see col. 3, lines 13-15 and col. 5, lines 60-65). Shattil does teach an adjustment circuit (see col. 14, lines 4-8). Wilson teaches receiving a reduced antenna signal (see col. 3, lines 36-39). It would have been obvious to one of ordinary skill in the art at the time the invention was made to make the invention adapt to include an adjustment circuit receiving a reduced antenna signal, and outputting a signal to an active shield to create a near field based on a reduced antenna signal because this would allow for a device that provides an attenuating effect to radiation from a mobile communication device.

Regarding claim 7 Killion, Shattil and Willson teach a device as recited in claim 6 except for a reduced antenna signal that is approximately 10 % of an antenna signal. Wilson further teaches reducing an antenna signal (see col. 1, lines 30-33). Although Wilson fails to disclose an antenna signal reduced by approximately 10% it would have been obvious to one of ordinary skill in the art at the time the invention was made to make the device adapt to include a reduced antenna signal that is approximately 10 % of an antenna signal because this would allow for a device that provides an attenuating effect to radiation from a mobile communication device.

Regarding claim 10 Wilson teaches a circuit that includes an attenuator (see col. 1, lines 30-32).

Regarding claim 13 Wilson teaches a predetermined region that is near an operator's earpiece (see col. 3, lines 55-57).

### ***Response to Arguments***

Applicant's arguments with respect to claim 1-29 have been considered but are moot in view of the new ground(s) of rejection.

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Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Wong U.S. Patent Application 6,341,217 discloses a portable telephone with shielded transmission antenna.

Spann U.S. Patent Application 5,819,162 discloses an electro-magnetic interference shield for a telephone handset.

Liu U.S. Patent Application 6,359,216 discloses an electromagnetic wave shield pad for mobile phone.


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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brandon J Miller whose telephone number is 703-305-4222. The examiner can normally be reached on Mon.-Fri. 8:00 am to 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William Trost can be reached on 703-308-5318. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-3900.

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